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The Canada Medical Record

Vol. XVII. MONTREAL, NOVEMBER, 1888. No. 2.

CONTENTS.

ORIGINAL COMMUNICATIONS.

Gynecology and Obstetrics 25

PROGRESS OF SCIENCE.

A Novel Society 28
Carbolate of Camphor 28
Doctor's Bills 28
Glycerine Suppositories 28
The Disinfection of Sputa 28
Atropin and Hyoseyamin 28
Students and Work 28
Professional Euphemism 29
Hypodermic Medications 29
Swallowed the Thermometer 29
The Value of Belladonna and Hyoscyamus in Dysmenorrhœa 29
Treatment of Typhoid Fever 30
Treatment of Chancroid 30
Glycerine as a Surgical Dressing 31
Simple Electrical Apparatus 31
Recent Advances in Surgery 32
Monthly Summary of Medical Progress 34
Surgery of the Brain 36
Spontaneous Bacteriotherapy 44

EDITORIALS.

Disinfecting Instruments 45
Salicylate of Ammonium 45
Phthisis 45
The Phonograph 45
Pathology and Treatment of Uræmia 45
Whitechapel Murders 46
Sir Morell McKenzie and the Emperor of Germany 47
Notices of Books 48
Personal 48

Original Communications.

GYNECOLOGY AND OBSTETRICS.

By A. Lapthorn Smith, M.D., Lecturer on Gynecology in Bishop's Medical School, Montreal.

Dr. Robert Bell *(Br. Gyn. Jour.)* thinks that disease of the tubes and ovaries begins primarily in the endometrium, and that most cases of displacements are also due indirectly to the same cause. He, therefore, makes the mucous membrane of the uterus the principal object of treatment. In this point he agrees with Apostoli, but he differs from him in thinking that electricity has no advantages over iodized phenol (320 grains iodine to 8 ounces liquid carbolic acid), which he has employed in over 2,000 cases. He says that he has frequently seen cases of salpingitis get completely well under the treatment of the endometritis. He calls attention to the fact that the pain caused by an application to the endometrium is generally referred to the ovarian region. When there is a granular condition of the endometrium, or if there is a rupture of the perineum, he thinks that these conditions should be cured before commencing the iodized phenol treatment. It is interesting to note that he considers 16 to 24 intrauterine applications made weekly and double that number of glycerine of alum and boracic acid tampons applied bi-weekly a reasonably small number with which to effect a cure. I quite agree with him when he says that the toning up of the relaxed uterine walls is the true method of curing deformities (which is the name I give to flexions in contradistinction to displacements, which I limit to versions and prolapse). Unless there is metritis, he does not fear to turn the applicator around in the uterine cavity and to leave it there a minute or so. If there is metritis he first reduces it with tampons, &c. He says that this intrauterine medication is frequently followed by the cure of both versions and flexions. This has been my own experience with iodized phenol; but I must also say that my results with the positive intrauterine galvano cauterizations have been much more speedy in appearing, with few exceptions only requiring five or ten applications. He is mistaken when he says that none of Apostoli's disciples seem to have any positive idea how it acts, or which pole should be inserted in different circumstances. A careful perusal of Apostoli's book on chronic endometritis would make this point as clear as day to him.

Dr. G. R. Southwick *(N. Y. Med. Jour.)* reports several cases of uterine displacement cured by ventral fixation, that is, sewing the uterus to the abdominal wall. In former numbers of the *Journal* I have not

spoken very favorably of Alexander's operation for the cure of displacements, owing to the difficulty experienced in finding the round ligaments and to the danger of leaving a hernia. Since I have seen the operation performed without general anæthesia, but merely by the aid of a hypodermic injection of cocaine, and by the improved method of Dr. Kellogg, of Battle Creek, I have been led to think more favorably of it. While visiting the large sanitarium at that place last month, Dr. Kellogg kindly operated on a case which he had been keeping for me, and I was astonished to see how freely he used the cocaine. During the course of the operation, including two sides, he used a syringeful containing four grains of hydrochlorate of cocaine. In other words this lady received in the course of half an hour four grains of cocaine divided into four injections of a grain each, and with no ill effects whatever. During the whole time she was watching the operation and asking what each thing was as the Doctor picked it up with his forceps or hook, with the exception of a few minutes, when he insisted upon her laying her head down. Dr. Kellogg has performed the operation sixty-five times, and the most of them with an important modification. Instead of looking for the terminal extremity of the ligament where it is merely a thin aponeurotic expansion, he makes his incision directly over the line of the inguinal canal between the internal and external abdominal ring, when, on making a tiny incision in the aponeurosis of the external oblique, the red fleshy belly of the muscle is seen. This is hooked up with a small strabismus hook and it is pulled out of its sheath as far as it will come. The uterine end of the loop is then stitched to the wall of the canal and the two inches or so of slack are carefully tucked back into the canal. Fine iron dyed silk is used and the operation is performed antiseptically, his results being very good. The only time the patient complained of pain was when he was pulling out the muscle from its peritoneal sheath. It is probable that cocaine is destined to take a still more prominent part in gynecology and surgery generally. Dr. King, of New York, in a private letter, tells me he uses it invariably in applying electro puncture to uterine fibroids through the abdominal wall, an operation which he has performed over 400 times.

In the *Brittsh Medical Journal* there is an article on the treatment of cancer of the uterus by carburetted hydrogen mixed with equal proportions of olive oil. Of course, it is only palliative.

Dr. J. H. McBride, in the *Medical Standard*, reports several cases of paralysis and neuroses in uterine diseases; but I think they are pseudo-paralytic symptoms, such as are due to dyspepsia, as I have frequently seen the same symptoms in dyspeptic men, in whom there was no nervous disease whatever.

Dr. W. Gill Wilie *(College Medical Journal)*, in a very interesting article, strongly recommends boro-glyceride and cotton as a substitute for the pessary; but he says it is a mistake to regard a simple displacement of the uterus as a disease, although it is frequently associated with serious diseases. As a rule, if the disease is cured, the displacement is of little consequence, and that the pessary is only a helping instrument, that it is only palliative, and that its use alone is not good practice. He uses with great success one ounce of boro-glyceride and enough of pure glycerine to make a pint, and one ounce of sulphate of alum if he requires an astringent; if not, the acetate of aluminum. He takes the borated cotton, which comes in flat sheets, rolls this firmly into a roll about one inch in diameter and two inches long, tying it with a good flax string at the end; this, thoroughly saturated and put into the vagina, will retain the shape for four days. It will stay where it is put, and in four days it will be in almost the same position. For the first twenty-four hours after it is introduced

there will come away a profuse watery discharge, from four to eight ounces or more, in proportion to the condition of the uterine vessels.

His method of introduction is as follows: Place the patient in Sims' position, then introduce Sims' speculum. After saturating the cotton thoroughly, pull back the perineum and push the cotton against the cervix, and let the cervix rest on the anterior part of the cotton. Hold the cotton in that position and remove the speculum. The anterior portion would then lie in the direction of the pubic bone, and thus acts as a pessary, beause the perineum springing up against the cotton, keeps it in place. The action of the boro-glyceride is to prevent any kind of ferment or change. It has a good effect in catarrhal conditions and does not interfere at all with the action of glycerine and alum in producing the watery discharge, He leaves it in for twenty-four to seventy-two hours; then washes out the coagulated mixture, and in three or four days makes a second application. If there is much dragging sensation, he tells the patient to wear it for two or three days.

The watery discharge that comes from the mucous membrane not only of the vagina, but of the uterus, forces a rapid circulation through the pelvic vessels. It acts in the manner of hot poultice, by getting up an active circulation through the tissues, thus bringing fresh and healthy blood to the tissues: in that way it helps to eliminate diseases. He says he can take a case of sub-involution of two or three months standing, with the dragging sensation and more or less discharge, and in from three to six weeks he will reduce the uterus to its normal size, using nothing else but this cotton. I can heartily endorse this treatment, as it has enabled me to entirely discard pessaries.

The exosmotic action of glycerine cannot be too highly appreciated in cases of passive engorgement.

Dr. Henry Rutherford, in the *British Medical Journal*, reports a number of cases of fibro-myomata, in which he obtained marked diminution and in some cases complete arrest of hemorrhage by the use of fifteen drops thrice daily of tincture of hydrastis canadensis.

In the *Chicago Medical Times* Dr. A. L. Clark has an article on the treatment of painful menstruation by viburnum. I notice, however, that it required from five to six months to obtain relief from pain. I would suggest to him, fine wire faradism.

In the *synopsis*, Dr. Joseph L. Bauer reports a case of retroflection of the uterus completely cured by Brandt's method of massage, which consists in introducing the right index finger into the vagina, so as to reach and elevate the uterus, the left hand on the abdomen compressing the uterus against the right index finger, the organ thus being alternately elevated and compressed during five minutes' time and repeated every other day. It is but right to say that glycerine and tannin tampons were used at the time.

From a discussion going on in some of the journals it would appear as if cutting the cervix for stenosis may again come into fashion: but I think that it cannot compare in safety and permanence of results with Goodell's rapid dilatation.

Laparotomists who use drainage tubes are beginning to realize that they cannot drain against gravity. They are, therefore, either draining into the vagina through Douglas cul-de-sac, or when they drain through the abdominal wall they keep the patient on her side.

Doleris, in Paris, and Martin, in Berlin, are treating diseases of the uterus entirely by plastic operations on the anterior and posterior vaginal walls and perineum.

Loss of life from wild animals and snake bites is said to have been unusually great during the past year in India. In 1887, no less than 1,203 persons so perished, the number for 1886 having been 1,109.

Progress of Science.

A NOVEL SOCIETY.

A medical society has been started at Omaha, in the United States, on a novel principle. There are neither rules nor officials, not even a president, and, what is more, there is no annual subscription. The society meets twice a month, at the residence of the member who desires to read a paper. Such an organization is well adapted for provincial towns of small size, if the rival doctors could only be induced to put aside their mutual jealousies for awhile.—*Med. Press.*

CARBOLATE OF CAMPHOR.

The carbolate of camphor is prepared by rubbing together one part of camphor in three parts of carbolic acid. The result is an oily substance with a well marked odor, which, when mixed with an equal bulk of oil, is an excellent application for boils, the smarting of herpes and vulvar pruritus. Injected hypodermically it gives rise to a burning sensation, followed by local anæsthesia. It has been given internally in capsules containing from five to ten drops.—*Med. Press.*

DOCTOR'S BILLS.

The medical fraternity of Johnson county, Mo., adopted the following resolution: "After January 1, 1888, no account will be allowed to run over six months from date of first visit without satisfactory settlement. All accounts are due when services are rendered. Parties who are in the habit of running bills from one year to another without paying, must continue to employ their former physician until he is paid in full, or pay cash for every visit in advance to the new one.—*Texas Health Journal.*

GLYCERINE SUPPOSITORIES.

The sudden popularity of the suggestion to treat constipation by means of rectal injections of glycerine has led to the employment of glycerine suppositories, which are much more convenient to use than the syringe. These suppositories are prepared in the form of capsules, containing sixteen minims of pure glycerine, and they operate in from fifteen to twenty minutes. The employment of glycerine *per rectum* seems to be specially indicated when the constipation is associated with gastric derangements. —*Med. Pres.*

THE DISINFECTION OF SPUTA.

According to the *Bulletin Medical*, an apparatus has just been devised and placed in the Hôpital Lariboisère, which, by a new antiseptic process, will be used for the purpose of disinfecting all the sputa given forth by tuberculous patients. The idea is by no means a novel one, though it can readily be understood that the sooner the infectivity of sputa swarming with the tubercle bacillus is effectively destroyed the better. There are no details to hand in respect to the special features of the apparatus, but the assumption is that it cannot be of a very elaborate description in order to carry out the object in view.—*Med. Press.*

ATROPIN AND HYOSCYAMIN.

Some remarkable results have been obtained in regard to the interchangeability of atropin and hyoscyamin. It has been shown that in treating belladonna root for the purpose of extracting the alkaloid, it is possible to obtain either atropin or hyoscyamin, or a mixture of both alkaloids by varying the process. These results would seem to authorize the supposition that atropin does not exist as such in the belladonna plant, but is really hyoscyamin, which is converted into atropin in the course of manuture. The discovery was made at the Chemische Fabrik at Aktien, and possesses considerable interest from many points of view.—*Med. Press.*

STUDENTS AND WORK.

To students who are diligently inclined, it is as refreshing to get back to systematic work once again as it is, at the end of the session, to lock up the books and turn to less arduous occupations. The discipline of lectures and classes is as invigorating as the cold blast which heralds the approach of the winter, and the fact of having plenty of work to do, coupled with the will to do it, is an excellent and consoling set off to the dreariness of the autumnal skies. The energies must be braced up for a good six months' "spell" of work, broken only by the ephemeral and short-lived festivities of Christ-

mas time. No one can dawdle with impunity under the present requirements. Every moment lost at the beginning will have to be paid for later on, a fact that the beginners are apt to ignore in the happy excitement of their new surroundings.—*Hosp. Gazette.*

PROFESSIONAL EUPHEMISM.

"What would you advise, doctor?" groaned the young man the next morning after the banquet.

"My advice, sir," replied the physician, after feeling the caller's pulse, examining his tongue, and pondering deeply a few moments, "is that you give up all thoughts of business for the day, return to your residence, retire to your own apartment, have some water heated to the boiling point, procure a number of clean cotton bandages, dip them carefully in the water, apply them to the head as hot as you can bear them, and keep them constantly moistened, replacing each bandage by a fresh one as soon as it becomes noticeably reduced in temperature. Maintain this method of treatment for six hours and you will be relieved."

"Christopher Columbus!" ejaculated the young man, an hour or two later, while carrying out these instructions, "I paid that doctor $5 for telling me to go home and soak my head."—*Chicago Tribune.*

HYPODERMIC MEDICATIONS.

The following precautions, which are issued with Messrs. Burroughs, Welcome & Co.'s hypodermic tabloids, are worth remembering:—

Solutions of the alkaloids soon decompose and should therefore be freshly prepared.

The smallest size of each tabloid given is the one generally preferred.

The dose, hypodermically, is always less (the proportion varies) than by the stomach.

Great care should be taken not to throw a medicament into the vein, and so produce a sudden overwhelming effect.

Fatal collapse might ensue from injecting air into a vein.

Absorption of an injection over the temple or chest is twice as rapid as elsewhere.

The prick of the hypodermic needle in the chest has been followed by instant death.

Syncope may follow an injection, if patient do not remain quiet and lying down.

For safety and freedom from pain, an injection should be made in the outside of the arms or thighs, or in the abdomen or back.

Injections should not be made over bony prominences, or into inflamed or tense tissues.

Mercury, ergot, &c., are best injected into the muscles, as in the nates.

It is not usually considered safe to repeat an injection (as of morphine) for 20 or 30 minutes.

SWALLOWED THE THERMOMETER.

The patient, a German, who understood but little English, was admitted to the hospital for a fever not yet diagnosed, says, Dr. M. Singer, of Galveston, Tex., in the *Medical Record*. As soon as he was seated by his bedside I introduced the thermome er into his mouth, enjoining him at the same time not to bite or swallow it. Standing in front of my patient I saw the thermometer disappear in his mouth, while at the same time a motion as of deglutition was performed by the man. When I recovered from the shock such a sight gave, I requested my patient to open his mouth. Sure enough the instrument was there no longer, and when I asked the man in German what he had done with the thermometer, he answered that he had understood me to say that he should swallow it, and of course he had obeyed orders.

I snatched a blanket from the bed and spread it on the floor, then making the man lie flat on his stomach on the bed, with the head hanging down over the edge of it, I told him that unless he wished to die he should introduce his fingers as far down the throat as possible and make one supreme effort to return that thermometer. This was quickly and efficiently done, for in less time than it takes me to relate it, the thermometer was regurgitated, and fell safe and sound on the blanket. I took the precaution of tying a thread to my instrument whenever it afterward became necessary to take the temperature of this or any other bright-minded patient.

THE VALUE OF BELLADONNA AND HYOSCYAMUS IN DYSMENORRHŒA.

Writing to the Lancet of September 22nd, Dr. James Shaw reports:—During the last year he has had occasion to treat several cases of that form of dysmenorrhœa vaguely and variously designated neuralgic or spasmodic, and occurring in young girls, whom it was of course very undesirable to examine. One of these cases was of marked severity, and as it had continued for about a year there was considerable nervous

prostration. Morphia was the only drug that at all mitigated the suffering, but in consequence of its administration the patient was wretchedly troubled with headache and constipation and he was forced to abandon its use. He therefore prescribed the following mixture, one ounce to be taken three times a day, and it acted like a charm: val. belladonnæ, nine minims: val. hyoscyami, two scruples; syr. aurantii, two drachms; water, six ounces. The epoch has now been robbed of its terrors for her. Writing the other day from Germany to her mother, she says the last six months are the only happy ones she has known since the function was established. In the other four cases there was likewise considerable suffering, and in these also complete relief was afforded. He prescribes it to be begun a day before the period is expected, and continued while the pain requires it. The valoids employed are those manufactured by Messrs. Burroughs, Wellcome & Co., and for obtaining the characteristic action of the drugs Dr. Shaw knows of no preparations that equal them. The old-fashioned tincture, though perhaps a trifle more elegant, is at once feeble, expensive and unreliable. In the majority of them the spirit is the active ingredient.—*Med. Press.*

TREATMENT OF TYPHOID FEVER.

In compliance with the request of the Sydney Board of Health, Dr. W. Pierce, medical superintendent of the Coast Hospital, has reported upon the treatment of cases of typhoid fever, of which the rate of mortality during the first five months of the present year has been unusually low. Dr. Pierce, in his memorandum, states that, in cases received within the first ten days of the disease, calomel (three to five grains) is administered; and after that acetanilide, in five grain doses, whenever the temperature exceeds a certain point (101° to 103°), up to six or eight times in the twenty-four hours. The effect of this is to cause a fall of temperature in about forty minutes, attaining its minimum in from two to four hours, with concomitant fall in the pulse and respiration rates, with decrease of arterial tension and profuse sweating. The tendency to delirium is diminished, and there is "a remarkable feeling of ease and repose, which appears partly to depend on the production of a certain amount of peripheral anæsthesia." When the effect of the drug passes off, the temperature often rises with great rapidity. He considers this treatment to have many advantages over cold bathing. He has given the drug continuously for several weeks, and has not found it contraindicated, even when there were cardiac complications. It renders the course of the fever milder, but it may not lessen the duration of the disease. In all cases where it is freely given there is liability to occasional cyanosis of extremities and face, with irregular pulse. Alcohol was given very sparingly, and generally only in cases of failing heart, and Dr. Pierce thinks that the prolonged use of alcohol is very injurious.—*Lancet*, September 15.

TREATMENT OF CHANCROID.

The most satisfactory treatment for chancroid which I have employed is thorough cauterization with pure nitric acid and the subsequent application of salicylic acid powder; the object being, first, to convert the infected ulcer into a healthy one, and then to prevent reinfection of the wound. While this method succeeds admirably among the better class of patients, it often fails completely in hospital practice from a failure to carry out the after-treatment. I have frequently seen reinfection take place in ulcers that have been perfectly healthy for several days, by simple contact with clothing upon which the dried secretions from the original sore had been allowed to remain. A method which in my hands has proved valuable in this class of cases, but which, as will be seen, is applicable only to chancroids occurring behind the corona glandis, is the following: The organ is cleansed with a strong solution of bichloride—all ulcerated points thoroughly destroyed by nitric acid. Salicylic acid powder is then heaped upon the wound and covered by a thin rubber protective which completely encircles the penis. This should be snugly applied and held in place by a few layers of absorbent gauze and a small bandage. The heat and moisture of the body soon cause the thin rubber tissue to adhere closely to the skin, completely sealing the wound; its elasticity, also, allows of considerable change in the size of the penis without disturbance. This dressing should be left in place for from three to six days, and completely

protects against reinfection. If properly applied the resulting ulcer is always healthy and closes rapidly. I have applied this method in ten cases with most satisfactory results, in several of which very extensive ulcerations were present.—Dr. Brewer, in the *Journal of Cutaneous and Genito-urinary Diseases*.

GLYCERINE AS A SURGICAL DRESSING.

The essential points of a good surgical dressing are: 1. It must be non-irritating, either directly or indirectly. 2. It must be antiseptic. Mr. John Wood has said that "antiseptics are the local use of applications calculated to prevent suppuration and putrefaction, and to promote quick healing. This admitted, antiseptics must be not only in the use of some chemical which shall destroy septic germs or render their growth impossible, but also the use of such means as shall, by promoting quick healing and preventing suppuration, tend to render the presence of these germs less harmful. In considering these means we are brought to the third essential point, and that is quick and thorough absorption, and here it is that dressings in common use appear most to fail.

Now, we want a dressing that is non-irritating, antiseptic, will not become adherent, will allow free drainage, will not allow the discharges to get hard and caked, will be freely miscible with the discharges, and not evaporate at any temperature of the body nor occupy the place intended for the discharges. We have, I think, what we want in the glycerine of starch of the *Pharmacopœia*, with some antiseptic dissolved in it; for example, corrosive sublimate 1 in 1000 parts. The starch, added for convenience of applying the glycerine, in addition forms a non-irritating surface to apply to the wound and is a mechanical protection; it is most conveniently applied thickly spread on one or more layers of Gamgee tissue or some absorbent wool. This application is not irritating, is antiseptic, and is removed with the greatest ease from any wounded surface. As glycerine is freely miscible with the discharges it is quite absorbent, discharge in passing into and through the dressing becomes mixed with the glycerine, and as this does not evaporate, it is thus prevented from becoming caked or hard and dry. The glycerine, itself hygroscopic, does not usurp the place of the discharge nor prevent the free escape of the watery vapors. Such a dressing after several days will be found moist, soft, flexible and easily removed; it is heavy with the quantity of fluid it contains, a proof of absorptive powers. The discharges are not collected in one spot. Next the wound there is a jelly-like layer which is easily removed, leaving a clean surface, and the sutures, if any, distinct and easily taken out, not being caked with blood.

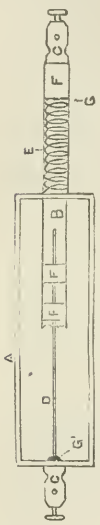
In my own practice I have found healing of incised wounds under this dressing quick and accurate, and the dressing of lacerated and contused wounds is absolutely painless and very quick; I have found it of much benefit in those chronic granulating wounds which every dressing seems to irritate, and have applied it with success as a daily dressing in two cases of purulent conjunctivitis. I have not had an opportunity of trying, but should think glycerine of starch might be used with advantage in skin grafting.—Mr. C. E. S. Fleming, in *British Medical Journal*, September 22.

SIMPLE ELECTRICAL APPARATUS.

By Sumner Gleason, M.D., Carthage, New Mexico.

Electricity is admitted to be a potent factor for good when properly used in some of the derangements of the human system. Here there is a large field open for research and a rich harvest to be gathered. The medical profession is just beginning to learn how to make use of this agent: but a large number of physicians are still in ignorance as to the methods of operation or the results to be obtained. This is in great part due to the expense of the apparatus necessary. Now a convenient galvanic battery for office work can be made for a very few dollars, and any physician of a mechanical turn of mind will take pleasure in putting it together. Zincs and carbons with attachments can be obtained from any manufacturer of electrical apparatus. These should be attached to a thin board, so that they can be raised from the cells when necessary to add more water. Cells can be made of old bottles. To cut off the tops, place the bottle in the corner of a box which holds a steel wheel glass-cutter at the place at which it is desired to cut the bottle: turn the bottle until the lines meet: then heat the line in a flame for a moment and plunge

the bottle in cold water; the top will then split off neatly in the line marked. Paraffine the inside of the jar for about an inch from the top. The carbons and zincs should also be paraffined above the level of the fluid, in which they may remain constantly. The fluid consists of a saturated solution of bichromate of potash and muriate of ammonia, the latter being pure. Thirty-six cells will give enough current to commence with, and after becoming familiar with its effects, as



A. Wooden box.

B. Glass tube filled with water.

CC. Binding-posts.

D. Straight copper wire.

E. Coil of copper wire.

FFF. Corks.

GG. Screws.

many cells can be added as are desired. A milliampere-meter is not a necessity for the novice. He will learn more by experimenting on his own person; but, of course, cannot expect to obtain as good results from his battery.

Above is the drawing of a rheostat which can be made for a few cents. This is indispensable where there is no arrangement for time. It serves the purpose of increasing and decreasing the current without shock to the patient; it can be attached anywhere in the circuit, and should always be used where a steady current is passed through a sensitive part. All that is necessary to buy is two binding-posts and screws, costing ten cents each. A glass tube can be made of an ordinary glass syringe, cutting off the end with a file. In one end fits a cork to which should be attached a binding-post, the screw passing through the centre of the cork. To the head of the screw attach a copper wire coiled so as just to fit in the tube. This should be so that it can be removed easily and the tube filled with water, which should be done before each sitting, as the water decomposes rapidly. In the other end of the tube, place one or two corks. In one end of a small wooden box cut a hole just large enough to allow the tube to slide easily. At the other end attach a binding-post, and to the screw-head on the inside a straight copper wire to pass through the centres of the corks FF. Now a current of electricity passing through this wire meets the resistance of the column of water, and as the tube is pushed in this resistance grows less, until the wire is in contact with the screw G; the current is then at its maximum intensity. The tube should of course be pulled out before the current is broken.

RECENT ADVANCES IN SURGERY.

We can give only a few extracts from a most carefully prepared and valuable address on the above subject, before the Surgical Section of the Canadian Medical Association at Ottawa, in September, by Dr. Shepherd, of Montreal, and which appears in the October *Canada Lancet*.

Dr. Shepherd remarks on the treatment of wounds that the principles still in force are "Cleanliness, Rest, and Asepticity." "The dressings applied to wounds have become much simpler, and the antiseptics most relied on are soap, water and a good nail brush." . . .

Faith in germicides is being lost, and although irrigation has supplanted the spray, the solutions used have become weaker and weaker, until some surgeons use water only, especially in operations on the abdomen and thorax, where antiseptics have been proved to be absolutely injurious and often dangerous. . . .

Whilst in Germany last summer I saw in every surgical Klinik the magnificent ruins of the spray producer, looking like some old castle which marked the customs and conditions of other days. Lister himself was one of the first to give it up." . . .

Dr. Shepherd next referred to the surgery of the abdomen, and to the steady diminution of the mortality after the operations of ovariotomy and extirpation of the uterus, chiefly due to simplification of the methods of operating. The most successful elements, he states, in reducing the mortality have been "rapidity of operation and a not too elaborate toilet of the peritoneum, with drainage if there be bleeding." . . .

"In cases of *acute intestinal obstruction* it is now becoming a recognized custom for the physician to call a surgeon in consultation, and the result has been that many lives have been saved. In my opinion these cases should be placed in the hands of the surgeon from the first, as in the great majority of cases there is little hope of relief being afforded by medical means alone. Not a few cases of intussusception have been cured by early operations, and also many cases of strangulation due to bands, twists, etc. It is now an axiom of surgery not to let any case of acute intestinal obstruction die without at least an exploratory incision. . . .

Physicians still procrastinate in cases of intestinal obstruction. They do not advise operation until all hope of recovery has been abandoned, and operation has been looked upon as a *dernier resort*. The treatment by rest, starvation and opium has still charms for most practitioners, who are always hoping that "something will turn up." . . .

"In *inflammations* of the *cæcum* and *appendix* surgical interference has been attended in numbers of cases with remarkable success." . . .

Remarkably satisfactory results have been obtained in both *tubercular peritonitis* and *suppurative peritonitis* by operation with the view to establishing drainage.

"At the meeting of the British Medical Association, held in Dublin last year, some admirable papers on the *radical cure of hernia* were read by such surgeons as MacEwan, of Glasgow; Mitchell Banks, of Liverpool; Ball, of Dublin; Barker, of London, and others. The results of operations by excision of sac and stitching up the wound were most encouraging. MacEwan reported sixty-five cases operated on by his method without a death and only one failure. Banks, who was one of the first advocates of this method of operation, reported 106 cases; Ball, twenty-two cases without a death, and Barker thirty-five.

MacEwan does not excise the sac, but after reducing the hernia makes use of the sac as a pad, by drawing it up through the internal ring and fixing it there. Banks, Barker, and others advise excision of the sac and fixing the stump at the internal ring, whilst Ball's method consists in torsion of the sac before excising. . . .

French surgeons, after ligation and excision of the sac, do not advise closing the inguinal canal by sutures, as is done by English and German surgeons."

Dr. Shepherd gives some details of a case of his own; that of a blacksmith, aged 52, with an enormous, irreducible, scrotal hernia of the left side, from which he had suffered for many years. Dr. Shepherd operated for radical cure on April 25th, 1888. He dissected out and opened the sac and reduced the contents with the greatest difficulty. The sac contained all the small intestines, the transverse and descending colon, and the sigmoid flexure, together with a large mass of omentum. Several pounds of the omentum were excised, and it was only by suspending the patient by his heels that he was able to reduce the protruded bowel. The intestines had not been in the abdomen for years, and when they were all returned, after an hour and a half's exertion, the abdomen was as tense as a drum. "The sac was excised and the stump fixed to the internal ring according to *Barker's* method, and the canal closed by suturing the conjoined tendons to Poupart's ligament. The patient made an excellent and uninterrupted recovery, and is now pursuing his occupation as a blacksmith with comfort." In September there was not the slightest tendency to a return of the hernia.

"The *stomach* has been frequently successfully opened for the removal of foreign bodies, or the performance of Toreta's operation of dilating a contracted pylorus; operations of excision of malignant growths of the stomach are not growing in favor: the game, as a rule is not worth the candle."

In reference to the *surgery of the kidneys*: It is now a well established rule that no kidney should be removed without a previous nephrotomy, or exploratory incision. Again, no kidney should be removed until the condition of its fellow is ascertained. Several cases are on record where the surgeon has removed the only kidney in the patient's possession. A preliminary nephrotomy enables the surgeon to avoid this fatal mistake.

The most fatal results have been obtained in the operation of nephro-lithotomy. During the past year Mr. Jordan Lloyd, of Leeds, England, has introduced a method of exploration of the kidney, which is a great improvement on the old needle punctures. He advises puncture of the lower end of the kidney with a long-bladed tenotome, in

a direction upwards and inwards till the lowest of the calyces is reached; a small, short-beaked child's bladder sound is then introduced and the calyces and pelvis explored."

Surgery of the bladder: . . . "The old supra-pubic operation is now the fashionable one for the removal of stones from the bladder, and it is being practised largely everywhere. The operation has been much improved by the introduction of Peterson's rectal bags and the practice of moderately distending the bladder before operation with an antiseptic solution. The operation is suitable for cases of large and hard stones, and for the removal of tumours and foreign bodies, but it will no more supplant the old operation of lateral lithotomy than did lithotrity." In some cases of stone in the bladder, Mr. Reginald Harrison, of Liverpool, justly remarks, "it is necessary to do something more than merely remove the stone. In cases of cystitis with enlarged prostate where stone has formed, removal of the stone is necessary, but it is also necessary to prevent further formations, by getting the bladder into better condition." The bladder, says Dr. Harrison, is like a chronic abscess with a stone in it, and it is quite as necessary to drain the one as the other. These cases are unfit either for supra-pubic lithotomy or lithotrity: but the lateral operation provides an excellent means not only for the removal of the stone but of after drainage of the bladder. Ruptured bladders have recently been successfully treated by abdominal section, and suture of the bladder rent. An early diagnosis is of course important in these cases. Dr. Shepherd concluded an admirable address by making extended reference to the wonderful recent advance in the surgical treatment of *disease and injuries of the brain and spinal cord.*

MONTHLY SUMMARY OF MEDICAL PROGRESS.

By W. S. Wells, M.D.

Successful transplantation of skin from a corpse to a living patient it reported by Dr. Bartens in the *Berliner Klinische Woch.* The patient was a boy aged fourteen, who was suffering from a loss of the integuments of both feet, consequent upon a burn. Some skin was taken from the legs of a man aged seventy-five, who had died twenty minutes before, and was transplanted to the boy's feet. Cicatrization of the ulcers promptly followed.

Dr. Stephen Smith, of New York, is reminded by the above (*Medical Record*) that several years ago he transplanted seventy-five particles of skin from a leg that had been amputated over two hours, and of this number seventy-three lived and grew vigorously.

M. Barié (*London Lancet*) has observed four cases of variolous periostitis. The bones most frequently attacked were the left tibia, the radius, and the humerus. The The periostitis generally appeared five or six weeks after the onset of the smallpox, and manifested itself first by severe pain, limited to one part of the skeleton. There was no redness or heat of skin: a sort of swelling or hard œdema being found over the seat of pain, but no fluctuation. It was supposed to be identical, pathologically, with the periostitis supervening in typhoid fever.

A case of partial sloughing of the cornea, due to exposure to cold for nine hours on a Russian steppe, in driving against a snowstorm, is reported by Dr. Kuritzin (*Lancet*). Both eyes were similiarly affected, somewhat deep ulcers having formed, in shape and position corresponding to the openings between the eyelids. The other parts of the eyes were scarcely affected. The patient had never previously suffered from any affection of the eyes and made a good recovery.

The Sydney Board of Health having requested Dr. W. Peirce, of the Coast Hospital, to report upon his treatment of typhoid fever,—the rate of mortality being remarkably low,—Dr. Peirce states (*London Lancet*) that, in cases received within the first ten days of the disease, calomel (three to five grains) is administered, and after that acetanilide, in five-grain doses, whenever the temperature exceeds a certain point (101 ° to 103 °), up to six or eight times in the twenty-four hours. The effect of this is to cause a fall of temperature in about forty minutes, attaining its minimum in from two to four hours, with lowering of the pulse and respiration rates, and with decrease of arterial tension, and profuse sweating.

The tendency to delirium is diminished, and there follows a sense of repose. When the effect of the drug passes off, the tem-

perature often rises with great rapidity, and the dose must be repeated.

Dr. Peirce considers this treatment to have advantages over cold bathing. The drug may be given for several weeks; and he has not found it contra-indicated, even when there were cardiac complications. In all cases where it is *freely* given, there is liability to occasional cyanosis of extremities and face, with irregular pulse.

Alcohol was sparingly given, and generally only in cases of failing heart.

The Board of Health complimented Dr. Peirce on the favorable results of his treatment.

Dr. Huchard reports that salicylate of magnesium has rendered him wonderful services in the treatment of typhoid fever. The ataxic symptoms disappeared, the fetor of the breath vanished, the distended abdomen was diminished in size, and the foul odor of the stools was banished.

He believes that the death-rate from ileotyphus can be greatly lessened by the employment of salicylate of magnesium. The dose may be fixed at ten to fifteen grains, three times daily. It is soluble in water, also in alcohol.

Dr. R. Sanderson, at the Brighton and Sussex Medico-Chirurgical Society (*British Medical Journal*), read a paper on diphtheria, according to which the local lesion should be regarded, bacteriologically, as a "cultivation" upon human mucous membrane, and that the constitutional poisoning was directly proportional to the area occupied by the cultivation.

The diphtheritic membranes were a protecting blanket under which, and in which, this cultivation throve, and, were in themselves a mechanical danger, and aided the spread of the cultivation by transplantation and continuity.

They should therefore be thoroughly dissolved early, and re-dissolved as soon as reformed.

He knew of no solvent better than Finkler's papain. Having exposed the cultivation, a germicide should be used; he preferred acid carbolic. ʒ i.: glycerine, ʒ i.—M.

He maintained that by taking a case early, and treating the local lesion as above indicated, the area, and consequently the toxæmia, could be controlled, and the danger of invasion of the nose and larynx minimized.

A novel treatment of hydrocephalus in infants is published by Dr. Somma (*Deutsche Zeitung*), who has availed himself of the sun in curing five cases of this disease in its chronic stage. The treatment is as follows:

The child is given to an assistant, whose head is covered. With a clear sky, the occiput of the child is exposed to the rays of the sun, the assistant seated and immovable.

In the first four or five days the exposure may last a half hour or less; later, forty or fifty minutes. The treatment must be continued for a month. Dr. Somma believes the action of the heat of the sun produces absorption of the collection of intra-cranial serum, and gives a healthy stimulus to the vaso-motor system.

Dr. Little (*Dublin Journal Medical Science*) states that migranous headache is best relieved by twenty grains of salicylate of sodium in a wineglassful of water, made effervescent by the addition of a dessertspoonful of effervescent granular citrate of caffeine. The doctor has not found the latter alone efficient.

For the expulsion of tape-worm, with its head, Professor Pepper, of Philadelphia, succesfully employed the following procedure: The patient fasted during the day, and took a saline purge in the evening. The next day two fluid drachms of oleoresin of male fern was given, rubbed up with sugar, at 7 a.m., 8 a.m., and 10 a.m.

With the last dose a saline purge was given.

He says it is useless to trifle with smaller doses of male fern.

For the immediate relief of cramps in the legs, Dr. St. Clair (*Medical Age*) winds a coil of string around the leg over the place that is cramped, and taking an end in each hand gives it a sharp pull, one that will decidedly hurt. Instantly, he claims, the cramp will let up, and the sufferer may rest assured the cramp will not come on again that night. For a permanent cure he recommends galvanism, the negative pole being applied over the seat of the cramp, the positive pole on the thigh.

More suggestions are in circulation regarding the arrest of bleeding from the nose. Dr. Wade (*Deutsche Med. Woch.*) recommends that the hands and feet of the patient be placed in water as hot as can be borne, and asserts that this will check the most obstinate epistaxis.

Dr. Robinson, of Kansas, speaking of this

subject, says it is well known to anatomists that the hemorrhage, in the vast majority of cases, proceeds from the septum nares, supplied by a branch of the superior coronary, given off from the facial. It enters the nose just below the alæ nasi, crossing the superior maxillary bone at that point.

Firm pressure over this point is the treatment. Both these plans may be adopted simultaneously.

SURGERY OF THE BRAIN—BASED ON THE PRINCIPLES OF CEREBRAL LOCALIZATION.*

By Roswell Park, A.M., M.D., Professor of Surgery, Medical Department, University of Buffalo.

The purposes of this discussion and the division of labor between the essayists of the evening have made it necessary that the following remarks should be confined, as strictly as circumstances may permit, to a consideration of the essentially surgical aspects of the general topic of cerebral localization. To this end I prefer to restrict myself in the main to the surgery of cerebral abcess and to that of intracranial tumor. These are mainly chronic lesions, whose symptoms and signs are to be recognized by the principles already so ably rehearsed by Professor Mills. Indeed, I wish to be excused from considering, except in a casual way, operations for relief of recent hæmorrhage, a surgical field in which numerous brilliant results have been of late obtained, as well as those for epilepsy of traumatic origin, except so far as they are caused by abscesses or tumor, and those in which the operation is indicated by a study of the subjective rather than of the objective features: furthermore, I must also omit all immediate operations for gunshot or penetrating wounds of the cranium, unless they, too, come under the proper category.

Operations are taken upon the skull, as they are upon the abdomen, either for exploratory purposes or for relief of a recognized lesion. There is a rapidly growing tendency in favor of exploratory operations in each locality, and, as our technique improves, our confidence in their efficiency and safety becomes strengthened. There was a time when laparotomy for diagnosis was considered quite unjustifiable: now it is often our duty to perform it. There was a time when the operation of trephining had a mortality rate considerably over 40 cent.; now in proper hands it has fallen below 3 per cent. Surely many other can say, as can the writer, that they have never lost a patient as the result of this operation. This means really a great deal. Indeed, it is easily susceptible of demonstration that exploratory trephining is the safer of the two. Patients have died immediately after the puncture of the liver or the lung by the aspirating needle, but after similar puncture of the brain perhaps never.* These and other considerations induce one, then, by precept as by practice, to encourage in every legitimate way the early resort to exploratory trephining.

In the preparation of that which follows, the writer has not hesitated to avail himself of the labors and studies of others, and freely acknowledges his indebtedness to the work of Dr. Ferrier, as well as to the writings of those masters of cerebral surgery, Profesors Bergmann, Macewen and Horsley, and indeed to every essay upon the subject which he could utilize.

Cerebral Topographical Anatomy.

Here, as elsewhere, our surgical procedures must be guided by accurate anatomical data, and consequently, following the natural order, we must first consider so much of the regional and surgical anatomy of the cranium as concerns present purposes. In other words, we may properly look to the neurologist to make the diagnosis, but with equal propriety he may expect from us the ability to find the lesion. Not much less astonishing than the discovery of the planet Neptune at the spot determined by the computations of Le Verrier was the first discovery of a cerebral lesion at exactly the point indicated by a careful study of somatic disturbances; both were wonderful examples of inductive reasoning.

The areas which most concern the surgeon in this kind of work are those which cluster along the fissure of Rolando, and the proper determination of the locality of this fissure is to the surgeon what the long baseline is to the geodetic surveyor. Various rules have been laid down by which the

*Read before the Congress of American Physicians and Surgeons at its first triennial meeting, Washington, September 19, 1888.

*Since this was written the writer has seen Weir's recently published statement ("Am. Jour. of the Med. Sci.," September, 1888, p. 229) that he has twice seen death follow the introduction of needles into the brain, though to what depth he does not state, nor does he give the size of the needles. (Vide below.)

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location of this fissure may be determined. Without considering all of them, there are two or three of which it is worth while to briefly speak. First, it is necessary to accurately mark out two or three prominences about the skull as points of departure: the root of the nose, known in this sense as the *glabella;* the external occipital protuberance, known also as the *inion;* the point at the vertex of the skull, half way between these two prominences, the *bregma;* the external angle of the orbit, the tip of the mastoid process, the lower border of the alveolar process of the upper jaw—these are all landmarks of importance in one or the other of the methods referred to. Before endeavoring to make out any of the deeper fissures, by external aids, the scalp should have been shaved. The fissure of Rolando has its upper end about five centimetres back of the bregma, but it does not run quite up to the middle line; its lower end lies about half a centimetre behind the auriculo-bregmatic line and a little above an imaginary horizontal line, parallel to the alveolar-condyloid line, projected backward from the superciliary ridge; thus the lower end of the Rolandic fissure will be found about six centimetres above and a little behind the external auditory canal—in other words, its lower end is about an inch behind the bifurcation of the fissure of Sylvius.

Mr. Hare, of Edinburgh, has shown in the *Lancet* (March 3, 1888, page 408) that the distance of the upper end of the fissure of Rolando is fifty-five and seven-tenths per cent. of the total distance from the glabella to the inion; also that the angle formed by the fissure with the middle line of the skull is sixty-seven degrees. The fissure itself extends about three inches and three-fourths along this line, running from above downward and forward.

At the suggestion of Professor Chiene, Dr. Wilson constructed a scale of measurements for localizing fissures according to these data, and which is known as Wilson's *cyrtometer;* a home-made instrument of this kind I show you here. One strip passes coronally around the forehead, being fitted over the glabella and external angular process; another strip, at right angles, passes backward from the glabella to the inion. This strip is marked with two scales of letters, and these are located at points accurately marked out, according to the proportion of fifty-five and seven-tenths to one hundred. Should the distance of the inion from the glabella be found to be at a point marked with a capital *C*, the sliding scale on the instrument is put at a corresponding point marked with a small *c*; from this a projecting arm, fixed at an angle of sixty-seven degrees, will be easily bent down, directly over the Rolandic fissure, and with an aniline pencil this may be traced on the surface of the scalp. Accurately speaking, the fissure of Rolando is not a perfectly straight line, inasmuch as it forms a slight curvature opposite the lower end of the intraparietal sulcus, its lower half being directed a little more vertically; nevertheless, the line thus marked out will be sufficiently accurate for surgical purposes.

The bifurcation of the fissure of Sylvius corresponds to a point an inch and a quarter behind and a quarter of an inch above the level of the external angular process of the frontal bone.

The fissure of Sylvius divides into a short anterior and long posterior branch: it commences an inch back of the external angular process, along a line drawn from this process to the occipital protuberance; from this point a straight line to the center of the parietal eminence marks with considerable accuracy the course of the posterior limb of this fissure.

The H-shaped junction of the parietal, the great wing of the sphenoid, the frontal and the squamous bones was termed the *pterion* by Broca. The point of division of the fissure of Sylvius is just underneath the pterion. The line of the posterior branch has just been indicated; the anterior branch runs upward and forward almost underneath the line of the sphenoido-squamous suture. This anterior branch is important; it is the anterior boundary of the so-called motor region, while the posterior branch bounds the same area inferiorly. The precentral or vertical sulcus, which is not a fissure, is of importance, because it divides two convolutions of very different function, and because on each side of it are ranged convolutions in which exist the most extensive variety of motor functions. It runs parallel with and just behind the coronal suture, passing upward and slightly backward, reaching about to the center of the fissure of Rolando, and there bending forward. The inferior frontal sulcus is about opposite the temporal ridge, where it crosses the coronal suture at the point

termed by Broca the *stephanion;* or, to be a little more accurate, this point may be termed the lower stephanion, while the upper is at the point where the superior temporal ridge crosses this same coronal suture.

Behind the fissure of Rolando we meet with the intra-parietal sulcus which is the posterior boundary of the motor area; its commencement is opposite the slight knee-like bend alluded to in the fissure of Rolando; it passes upward and away from this fissure, and thus forms the ascending parietal convolution; it runs directly backward and finally nearly parallel to the longitudinal fissure, passing around the outer end of the parieto-occipital fissure which is at the apex of the motor region.

As Amidon has shown (*Medical News*, June 21, 1884), the first or superior frontal convolution commences about two centimetres and a half behind the bregma and passes forward nearer the median line toward the orbit: the second frontal occupies a similar but more anterior and lateral position; while the third frontal lies wholly in front of the auriculo-bregmatic line, on a plane five centimetres above the external auditory meatus: its folded part is about two centimetres and a half in front of this line, or about two centimetres behind the external angular process of the frontal bone. The ascending frontal convolution is in front of the fissure of Rolando, the ascending parietal back of it, while the fissure of Sylvius and its posterior division separate the ascending parietal above from the first temporo-sphenoidal convolution beneath. The more exact localization of motor areas can be seen at a glance from the accompanying diagrams, while, for a more accurate description of their exact location, I would refer to the paper of Mr. Horsley, in the *American Journal of the Medical Sciences* for April, 1887, page 342; Dr. Roberts' excellent monograph on the "Operative Surgery of the Brain" (Philadelphia, 1885): to a paper by Mr. Hare in the *Lancet* for March 3, 1888, and to the various monographs and treatises on diseases of the brain which need not be mentioned in detail.

In this connection it might be stated that lesions of the dura over these motor areas are by no means always to be distinguished from the lesions of the cortex beneath; and it is a well-established fact in surgical pathology that various disturbances of the dura can call forth symptoms of profound severity. The researches of Duret "On the Rôle of the Dura Mater and its Nerves in Cerebral Irritation" have shed a great deal of light on the functions of this membrane. In this respect Duret shows that the dura mater contains an abundance of sensory nerves which are extremely excitable, these nervous filaments being supplied from the fifth pair. It is known that irritation of the branches of the fifth often produces reflex spasms which may radiate down the cord, mainly, but not always, on the same side; or which may produce contractures of the muscles of organic life, pain, hyperæsthesia, neuralgias, and many other reflex sensory or motor phenomena.

These symptoms tend to diffuse and invade neighboring groups of muscles. They have never the localization, the measured and purposed character, of contractions which belong to lesions of the cortex. They frequently become transformed into permanent contractures. The reflex vasomotor disturbances due to irritation of the nerves of the dura mater consist in spasms, or congestive paralyses of the cerebral and ocular vessels, either on the same or the opposite side. These facts are important to pathologists, as they show the great influence of irritation of the dura mater on cerebral vascular conditions and on the organs of sense, and shed light on the causation of secondary effects in cerebral traumatism—that is, on the congestions and inflammations of the cerebral membranes. Destructive lesions cause local anæsthesia of the dura mater.

I have taken this statement *in extenso* from Duret because of its importance. These observations on lesions of the dura, coupled with those confined to the brain proper, lead me to simply make this remark in addition to what has already been said: It is enough for the surgeon that a lesion of some kind can be located with reasonable accuracy. It matters not whether this is an old irritative lesion of the dura, an acute suppurative process anywhere between the bone and the brain, or an abscess or a tumor in the brain itself. The indication for exploration is just as strong, and it is the surgeon's bounden duty to penetrate the bony roof of the brain and be prepared to do anything which may appear to be indicated, just as in abdominal surgery one begins an

operation as an exploration, being prepared to meet the indication upon anything which may be discovered within.

While the cerebellum is, in the future, to be by no means exempt from surgical invasion, we are, nevertheless, not here bewildered by such a wealth of topographical boundaries and divisions. It lies entirely beneath the tentorium, which divides to form the lateral sinus. This sinus follows a line nearly corresponding to the superior curved line of the external occipital surface, but a little below it. It would be best in operating to allow, at all events, at first, half an inch, and even then to perforate the bone with caution. It must also be remembered that the torcular Herophili is seldom exactly centrally situated—most commonly a little to the left—and that the region three-quarters of an inch on either side of the middle line had better be avoided, at least for the first perforation.

Other facts to be borne in mind are that children and the aged have no diplöe; that the crania of the aged may be extremely thin: that the frontal sinus is not to be ignored in operating in its neighborhood: that the superior longitudinal sinus is beneath the middle line of the vault; and that the middle meningeal artery lies about an inch and a quarter back of the external angle of the orbit, and is sometimes almost buried in a bony channel.

When and Where can One Trephine with Safety and Where should One Avoid Perforation of the Bone?

Probably the safest rule to follow is that the first application of the trephine should be over those well known areas of the skull which do not overlie large vascular channels, as, for instance, those points where one may wound the middle meningeal artery, the superior longitudinal sinus, the lateral sinus, the occipital sinus, and so forth · but, after an opening has been made at points free from this danger, it may be extended in any direction, to any required extent, with a feeling of security, inasmuch as the larger the opening, the better our ability to cope with hæmorrhage, no matter what its source. Hæmorrhage from the middle meningeal artery can, under these circumstances, be easily arrested. Our greatest hesitation would be with regard to opening one of the sinuses of the skull. Two dangers attend such an accident—one of fatal air embolism, as has happened to Volkmann in the removal of a sarcoma of the vertex of the skull: the other, that of profuse hæmorrhage. The former danger is almost a theoretical one, since operations on the brain proper are not nearly so likely to lead to this accident as lesions involving the bony skull itself. The latter is one which experience has taught is by no means fatal; for, should hæmorrhage thus occur from a sinus, the sinus itself may be plugged, or its wound may be closed with a fine needle and suture. Indeed, Bergmann entirely removed a part of the superior longitudinal sinus in one of his cases. The researches of Schellmann have shown that the integrity of one sinus at least may be destroyed without any serious effect upon the brain itself; though, theoretically, one must perhaps hold to the opinion that the liability to œdema of the brain will thereby be increased.

Parts of the Brain which may be considered as Proper Fields for Operation.

A variety of cases, some slight, some terribly severe in their destructive effects, have shown that, after all, there is but a comparatively small portion of the brain which can not be considered, in some sense, superfluous. We find that, after destruction of one part, another part, by a species of substitution, takes up its action; and we find from experiments on animals that large portions of more than one hemisphere may be removed without serious consequences. We may reasonably say that a tumor or an abscess in the brain, whose boundaries are continually enlarging, and which is consequently causing an increasing amount of destruction, is doing more harm than can be done by the surgeon's knife, which shall judiciously remove it, and thus take away the possibilities of harm caused by such a lesion. We may say, almost without question, that any part of the hemispheres is amenable to surgical attack, and at least a large portion of the cerebellum; only the basal ganglia, the pons, and the medulla can now be considered sacred, partly on account of their inaccessibility, partly on account of their primary functions. Further and more extensive experience may in some slight degree modify this statement, but it seems as though we were justified in making it with a reasonable degree of assurance. If we have any doubts in the matter at all, they are with reference to the cerebellum. The

cases of Hulke, Horsley, Weir, Suckling, and Hahn have shown that this part of the brain is amenable to surgery, but we are not sure as to just what extent. The case of Detmold, elsewhere alluded to, showed years ago how deep collections of pus might be evacuated, and a case recently reported by Dr. Blake, of Baltimore, in the "Philadelphia Medical Times," July 2, 1888, also the celebrated case of which the specimen is now in the Harvard Museum, or that reported in the "Medical Press of Western New York" for August, 1888, along with many others, will show that extensive or deep wounds are not necessarily fatal.

Cerebral and Cerebellar Abscess.

In his recent masterly paper ("Archiv f. klin. Chir.," xxxvi, 1888), Bergmann, in considering this topic, lays stress on the fact that abscess of the brain in adults has but one result—death; and that the surgeon's knife offers the only relief. The greatest difficulty lies in exactly diagnosticating the nature and locality of the trouble. So far as we know, there is no such thing as idiopathic abscess of the brain; it is always a sequel either of some external wound of the head or of some extension from deceased surrounding bone. The only exceptions to this statement are to be found in the case of pyæmic or tuberculous abscesses. Multiple abscesses are *almost* invariably metastatic, and consequently imply pyæmic processes, though a few exceptions have been reported.

Bergmann asserts a distinct place to acute cortical abscesses which form just underneath a point of fracture or of injury, which are to be distinguished by disturbance of healing, the altered aspect of the wound, or the escape of pus; or, if these be not noted in time, probably later by the symptoms of acute meningitis. Nevertheless, it is not always easy to distinguish between such an abscess and a suppurative meningitis; either may cause paralytic phenomena. The latter is perhaps more betokened by the changes of the incompletely healed wound than by pathognomonic symptoms. A leptomeningitis may develop with almost lightning-like rapidity, whereas time is required for the formation of an abscess. We scarcely expect an abscess to give characteristic sign before the second week. If slower than this, ample time has been given for such adhesions to form as may constitute an effectual barrier to the advance of pus Under such circumstances we have a localized collection of pus rather than a diffuse meningitis—one which can be easily opened and drained.

There is a notable difference between these superficial abscesses which develop in a few days, usually with symptoms that remind one constantly of a leptomeningitis acuta, and the formation of those deeper collections of pus in the brain which may lie dormant for weeks, months, or even years. The former are the direct result of surface lesions. The latter are not to be thus explained. Only exceptionally do we see evidences of extensive external lesions. Even violent injuries, such as cause concussion are not often followed by them. They correspond to the abscesses which form in bone—*e. g.*, the femur—and are the result of intermittent processes. Between the pus and the cortical surface lies apparently healthy brain-matter: whether the exciting impetus is transmitted along the lymph-vessels or the blood-channels is not now clearly made out.

It is the peculiarity of cortical abscesses to follow more or less superficial wounds; the deep ones seldom if ever have such a history. The latter more commonly are associated with foreign bodies or particles of bone driven deeply in. Protracted external suppuration does not seem to predispose toward them of itself, unless followed by caries or necrosis.

Another, and non-traumatic class of abscesses is that connected with disease of the middle ear, or non-traumatic suppuration in other parts of the bony envelope of the brain. Nearly half of the entire number of cerebral abscesses have this origin. It is only chronic otitis media suppurativa which leads to this result. Acute brain symptoms have followed ear trouble, but never a brain abscess. The method of their extension is too well known to need description here.

The position of abscesses connected with middle-ear disease is of surgical interest. Almost without exception they are found either in the temporal lobe or in the cerebellar hemisphere; in children most commonly in the former: in adults in the latter.

One of the most uncertain features about abscesses is the date of the origin. Suppurative processes in other parts of the bony skull have a similar influence in determin-

ing deep brain abscess. Perforating tubercular disease of the bone at any point may lead to abscess beneath; so may caries of the ethmoid or frontal, or ulcerative disease in the nose.

The symptoms of deep brain abscesses may be divided into three groups, according to their cause:

1. Those which are inseparable from indications of suppuration. Such are those disturbances which may follow any deep-seated foreign mass.

2. Symptoms of increased intracranial pressure and disturbed relations.

3. Special symptoms by which the locality of the disease may be ascertained (localization).

(1) Of all these symptoms and signs, fever is the most significant. This may be very irregular with long periods of intermission. This is of less value when there is coincident suppurative disease of the middle ear, since it may then be accounted for.

(2) The most significant symptom of increased pressure is headache—a persistent headache, varying in degree, always worse when the patient's temperature is raised. Everything which can increase intracranial blood-pressure—use of alcohol, too low position of head, etc.—increases the pain. In middle-ear cases the headache is more fixed and localized. It is increased by percussion over the affected area.

Other pressure symptoms are less frequent in abscess cases and more variable. Marked alterations of pulse and respiration rate, a pulse even as slow as 30, and Cheyne-Stokes respiration with coma, have been noted. These alarming symptoms may shortly subside, however, and such changes for the better and worse are much more common in abscess than in brain tumor. Choked disc is also less frequent in cases of abscess.

(3) Localization symptoms are often conspicuous when the abscess is in the motor area, the reverse when in the frontal, temporal, or occipital lobes. The local disturbances may be easily confused with those caused by simple degenerative processes (softening), such as in all probability are actually taking place around the abscess. In case the abscess subsides into inactivity and is followed by cessation and contraction, the local symptoms may much improve. The pus collecting in the depths of the hemispheres may only separate the motor impulse conducting paths, without materially affecting their integrity. So long as the grey matter is undestroyed, the collection of pus may assume large dimensions, even involve almost an entire hemisphere, and still no intense motor disturbance appear. But the nearer it approaches the cortex, and the more destruction it causes there, the more we may expect motor disturbances.

Like others, Bergmann lays considerable stress on local elevation of temperature over the abscess. General experience shows this to be a sign of great value when met with, but one the absence of which need by no means negative a diagnosis if made on other rational grounds.

The same writer also maintains that there is less probability of early recognition of abscess in the frontal lobes, since it is well known that these may be almost totally destroyed without symptoms. But the larger it grows and the further its encroachments extend posteriorly, the more likely are we to get disturbances of the speech, or paralytic features about the face or eyes. Bergmann says facial paralysis implies that the abscess in the frontal lobe—if such there be—is large.

Certain peculiar features are alleged to pertain to abscess in the *temporal region*. Thus Wernicke has stated that there is a peculiar disturbance of speech which points especially to this lobe as the locality of the disturbance. This is the confusion of correct with incorrect or fictitious (*"erdichteten"*) words; it is a species of aphasia implying interruption in co-ordination which results from trouble at this point.

Abscesses in the cerebellum for the most part go unrecognized. Frequent and severe attacks of vertigo, along with headache, loss of sensibility and of motion, are indications not usually lacking. According to Nothnagel, a staggering or swaying gait would imply lesion of the vermiform portion. But a collection of pus above the tentorium may produce similar disturbance in the underlying cerebellum by mere pressure.

In a paper on "Surgical Interference in Cerebral Abscesses," by Dr. Nancrede, of Philadelphia ("Transactions of the American Surgical Association," vol. ii, p. 85), some valuable hints concerning the diagnosis of cerebral abscesses are given. He

believes that such abscesses are accompanied in most cases by a subnormal temperature. Where a high local temperature is noted, either the pus is from a localized inflammation of the arachnoid, limited by adhesions, or else there is a meningitis in addition to the abscess. If originating from ear disease, where the abscess is secondary, the temperature is usually above normal, although not invariably so. When the motor area is involved, diagnosis is easy; where the motor area is not involved or has not been primarily affected nor injured, chance only can lead to a determination as to the location of the pus. His paper is additionally valuable on account of the cases to which it calls attention.

In the *Edinburgh Med. Journal* (May, 1887, p. 896, and June, p. 995) McBride and Miller have given some valuable hints as to the diagnosis and treatment of cerebral abscess due to disease in the ear. When the auditory nerve is intact the disease is, in all probability, located in the neighborhood of the tympanum. In this case one should trephine above and a little in front of the external meatus. It would be well to so plan the external incision that one can also attack the mastoid process. When the auditory nerve is involved, the pus will usually be found beneath the tentorium cerebelli. In case of thrombosis of the lateral sinus, one had better abstain from operation. If instead of an abscess, one comes down upon a diffuse meningitis, the operation will still be serious. McBride calls attention to the fact that in suppuration of the mastoid cells there will usually be pain on pressure over the process. In cases of chronic suppurative disease in the ear, it is better not to wait too long before opening the mastoid, if there is any reason to suspect the presence of pus.

In the treatment of mastoid disease it occasionally happens that after opening the mastoid and detecting pus the surgeon comes to a halt because he considers that he has done enough in the abscence of clear indication to the contrary. It may happen that subsequently cerebral symptoms supervene which point toward an abscess in the brain; in such a case it will be proper to enlarge the original mastoid perforation to the necessary extent, to expose the dura, and to explore with a hollow needle. If pus is found, the abscess is treated as usual; if no pus is found, no harm will have been done.

It has been a number of times shown that the temporo-sphenoidal region of the brain better tolerates surgical interference than almost any other part of it. If it could be generally taught that, anatomically and surgically, no good reasons exist why opening of the dura and draining of the middle fossæ should not be practiced in cases of suppurative meningitis, we should not have the sad fact to contemplate that so many of the cases of cerebral abscess due to ear disease die unrelieved by mastoid operation. If cerebral abscess can be excluded in favor of an abscess in the cerebellum, no hesitation should be felt in trephining through the skull below the tentorium. Mr. Barker has laid down an excellent rule in such cases—namely to explore the opening of the mastoid vein at once; if purulent softening has extended backward toward the cerebellum from the ear, some of the discharge will be found oozing from this opening. Not enough attention has been paid to his observations.

In the general diagnosis of cerebral abscesses it is necessary to remember that there is usually a latent period, devoid of all brain symptoms, which may continue for an indefinite time, from a few days to several years. The stage of active symptoms is usually ushered in by more or less headache and slight rise in temperature; local or motor symptoms can be expected only wh enthe abscess is in the motor area of the brain. With regard to the operative procedure, it is worth while to remember that Renz published in 1867 a case in which a traumatic cerebral abscess was reopened on account of symptoms of compression. In this case Renz practiced regularly a series of aspirations, emptying the abscess cavity through a small hollow needle twice a day for six weeks. Aspirations were discontinued during the sixth week, but had to be resumed five days later, and were continued six weeks longer. The patient recovered in half a year, and has since remained well. This is the first case on record of systematic and intentional aspiration of cerebral abscess. At the present day no one would think of practicing this method, but would make continuous drainage. When we remember that abscesses large enough to cause cerebral symptoms usually have a cavity at least large enough to find and

empty, we should be less unwilling to trephine and explore when we suspect the presence of one.

In 1855 Detmold opened the lateral ventricle with a knife and evacuated a quantity of pus, his patient dying later. In this instance he set an example of free evacuation of pus from the depths of the brain, which surgeons were uniformly slow in following.*

The question whether it is best to wash out an abscess in the brain after it has been freely opened is one not yet positively answered, authorities disagreeing; however, it would seem as clearly indicated to thus cleanse a pus cavity in the brain as anywhere else, especially so where the pus is as fœtid as it is in many of these cases. Fenger has suggested that possibly œdema or encephalitis in the neighboring portions, which are more dangerous than the abscess itself, may be by this measure prevented.

Operation for Abscess of the Brain.

Directions have been given by so many writers as to how to proceed in cases of suspected or certain abscess of the brain that it hardly seems necessary to repeat them here. The reader interested in securing explicit directions is referred to the papers of Fenger and Lee, "Am. Jour. of the Med. Sci.," July, 1884, p. 17; Nancrede, "Med. News," Jan. 28, 1888; and Weir, "Med. Record," April 9, 1887. These operations are to a considerable extent satisfactory, since the lesions can be diagnosticated with some certainty. The indication is not, under all circumstances, to operate on every case of abscess, or on those of every part of the brain; we have probably yet to learn, so far as clinical experience can teach us, what to attack and what to leave alone.

Traumatic brain abscesses have long been known, but until recently operators have satisfied themselves with incising the dura and doing nothing more. Quesnay and La Peyronie expressed a wish to explore deeper, but yielded to the conservatism of their day and did not. Dupuytren was the first to put a bistoury into the brain and thereby evacuate pus. Unfortunately, the death of his patient for a long time deterred others. Perhaps the next one to imitate him was Detmold. With the introduction of aspiration methods the hollow needle came naturally to be suggested for brain exploration. The dangers of this procedure are certainly small; indeed, the more certain the diagnosis of abscess, the less the danger. And yet less than five years ago, when the writer ventured to read a paper on this subject and to report cases in which he had resorted to it without harm to the patients, more than one friend whose judgment he valued advised him not to publish it lest he bring discredit on method and writer alike.

The most painstaking investigations which have been made in this direction are those of Spitzka ("Trans. of Am. Neurological Assn.," 1887). He has made careful search in brains after exploratory puncture had been done. In an autopsy three months after three needle punctures had been made no indication of puncture could he found in dura, pia, nor the surface of the brain. After making thin sections of the region involved, three dark-bluish lines were found extending vertically to the surface. These were found to be minute pencils of coagulated blood. There were no spider cells, nor indications of the slightest inflammatory disturbance, nor did neighboring nerve cells show any change. Several times after injecting foul or irritating material into the brains of dogs, for experimental work, he failed absolutely to find any track of the needle or trace of its having entered the tissues, even though the foreign material injected through it was found encapsulated.

In one case, however, after thirteen months, the entire channel made by the needle was plainly visible. The obliteration of the needle tracks was most conspicuous in the largest and most vigorous animals.

Referring to the depth to which needles may be passed, he advises that they should never be introduced so far as the internal capsule, the contiguous ganglia, nor the lateral ventricles, merely for exploratory purposes, unaided by positive clinical indications of the location of the disease. Certainly the dangers of exploration with a small aspirating needle are small.

But little more dangerous is an incision into the cortex. Among the hundreds or thousands of experiments on the brains of animals, how little evidence of the harmfulness of this measure can be adduced! Al-

*Dr. Detmold's case was reported in "The American Journal of the Medical Sciences," 1850. The brain was exposed on account of necrosis: as exposed, it was felt to be fluctuating; the opening was in the left frontal region, twelve centimetres square. Some four ounces of pus were evacuated, and the patient immediately opened his eyes and answered questions. The patient died over a month later, and, on autopsy, pus was found in both ventricles.

most invariably no unpleasant effect follows.

Next to the danger of doing anything of this kind, that from hæmorrhage has been the greatest in common estimation. But even this has been greatly overestimated. Most of the blood comes from the vessels of the pia rather than from the brain matter proper. The picture of a traumatic apoplexy may be most unpleasant, but is a most improbable one. In the use of the temporary tampon we possess an effectual method of combating this. And if it is the vessels of the pia which particularly give trouble, they may be lifted up from their resting places and secured, or one may follow the suggestions of Fluhrer or Nancrede and leave one or more small *serres-fines* in place for a day or two. We must only remember that the cerebral arteries are all terminal.

It has been shown that the brain resembles the kidney in this respect—*i. e.*, that its proper vessels are excentrically directed and run almost perpendicularly to its surface; consequently, if an incision be made in this same relative direction, but few of these will be wounded. It has also been shown that, while oozing from such a wound may be for the moment rather free, it will readily subside after the insertion for a moment of a tampon or sponge.

The danger of hæmorrhage, primary and secondary, will be alluded to again further along.

With regard to brain abscess consequent upon middle-ear disease we have only to add some suggestions as to the best points at which to trephine. According to Bergmann (*l. c.*, p. 801), the best position for application of the instrument is above and behind the ear. Draw a line from the lower border of the orbit to the middle of the external ear, and continue it backward. Four centimetres back from the external auditory meatus erect a perpendicular to this line, and at a point four to five centimetres above the first, on this second line, the middle temporal lobe will be reached, without danger of injuring the posterior branch of the middle meningeal artery—a danger nearly unavoidable if the trephine be applied just above or a little in front of the ear. MacEwan has proposed to make the first perforation through the squamous bone six centimetres above the ear, and then to follow with a second counter-opening on a level with the floor of the abscess, wherever this may be. Numerous cases are on record where death has resulted from failure to make this second opening (Nancrede), although Bergmann considers such through drainage inadvisable, holding that a single opening is sufficient if drainage is favored by position; irrigation, even, in his opinion, being at times injurious.

If abscess in the cerebellum is suspected, important information may be gathered by an incision from the mastoid foramen to the mastoid-occipital fissure. If pus appears here, along the vein or under the periosteum, then it is probable that it has worked its way into the posterior fossæ of the skull and determined an abscess in its contents. For, as Mr. Barker says ("British Medical Journal," December 11, 1886, p. 1155), "if there be inflammation in the posterior aspect of the petrous bone, it can hardly reach the cerebellum without forming a layer of pus under the dura mater of the lateral sinus." Any extensive operative procedure upon the cerebellum means attacking it below the tentorium. An aspirator needle might be passed into the cerrebellum through this membrane from above, but any tumor or abscess which it is proposed to radically attack must be reached from below the tentorium. (*Vide* the remarks above on *Topographical Anatomy.*)—N. Y. *Med. Journal.*

(*To be continued.*)

SPONTANEOUS BACTERIOTHERAPY.

The occasional cure of a local affection by an attack of erysipelas is a matter of common observation, and the occurrence is not necessarily to be explained as the triumph of one micro-organism over another. In a recent number of the "Gironale internazionale delle scienze mediche," however, Dr. de Biase gives examples in which erysipelas was followed by the subsidence of a systemic disease. He reports three cases of malarial disease that were perfectly cured by an attack of facial erysipelas. Not only did the febrile paroxysms cease, but the phenomena of chronic malarial poisoning disappeared rapidly "after the erysipelas cocci had got the better of the malarial micro-organism."

Rhus poisoning is said to yield quickly to the local application of fluid extract of Grindelia robusta.

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MONTREAL, NOVEMBER, 1888.

DISINFECTING INSTRUMENTS.

Often the simplest way of doing a thing is the best. And so it seems to be in the matter of disinfecting instruments. Dr. Davidson, writing from the Hygenic Institute of Berlin, says that he has proved by experiment that the best and simplest process is to place them in boiling water for five minutes, after which they ought to be dried with a sterilized cloth (a boiled rag), and then placed away until wanted.

SALICYLATE OF AMMONIUM.

In the journal of the American Medical Association for October 6th, Dr. J. K. Barnett, of Neemah, Wis., in an article well worth reading, draws attention to the value of the above remedy in typhoid and remittent fevers. It is generally combined with carbonate of ammonia, in a dose of four grains of the former and three of the latter every two hours. We recommend our readers to give it a trial.

PHTHISIS.

One of the most interesting and carefully prepared monographs that we have seen for some time is one by Dr. Lawrence Flick, of Philadelphia, on the contagiousness of phthisis. It is illustrated with three maps of the fifth ward of Philadelphia, in which every death from this disease during the last twenty-five years is represented by a dot. The grouping of the dots is startling. Whenever two deaths have occurred in a certain house, there are almost certain to be eight or ten others either there or next door.

The proofs are too elaborate for us to go into in detail, but any one who has any doubt about the contagiousness of phthisis would do well to obtain a copy of this pamphlet.

THE PHONOGRAPH.

We recently experienced the pleasure of spending an evening at Mr. Edison's magnificent laboratory and manufactory at Llewellyn Park, where the great inventor himself demonstrated to us the powers of the phonograph.

By means of the recent improvements, especially the using of a wax cylinder, the machine is now able to reproduce with equal distinctness, as many as 500 times, the sentences which have been spoken into it.

The day may yet come when it will be used, not only by students in the lecture room, to familiarize them with normal and abnormal heart and lung sounds, which they would otherwise have to learn at the bedside, but even the consulting physician in his office may make use of it to drum into the ears of his patients the advice which alone can cure their disease.

As all diseases may be considered as the natural consequence of the violation of the laws of health, and as it is the prime duty of the physician to teach these laws to his patients, might it not be possible to have the phonograph in the waiting room, so that when the patient enters the sanctum the doctor will find an already cultivated soil for his words of wisdom to fall on.

PATHOLOGY AND TREATMENT OF URÆMIA.

Dr. Wm. Carter's recent Bradshaw lecture on this subject has attracted consider-

able attention, and some of the results of the different investigators which he gives are rather surprising. For instance, Feltz and Ritter come to the conclusion that potassic salts are the most poisonous constituents of the urine.

Doubtless they have good grounds for coming to such a conclusion, but we think there is more laboratory science than there is practical common sense in their conclusions. Every one knows that urea is the ultimate stage of the metamorphosis of nitrogenous substances, whether taken in as food from without or obtained from the muscles of the body. Some of the intermediate stages between digested albumen or peptone and urea, such as creatin and creatinin, xanthine, oxalic acid and uric acid, are also well known; but there are probably a great many hitherto unrecognized chemical compounds varying in their degree of oxidization, and the presence of which in undue quantities in the blood gives rise to those vague phenomena so common in so-called dyspeptics. These investigators have done one good thing, however, in drawing attention to the products of intestinal putrefaction, and we agree with them when they say that intestinal antisepsis is indicated; also, the advantages of clearing out the intestinal tract at the beginning of an attack of uræmia are apparent.

We think more attention might be drawn to the relation of uric acid to Bright's disease. Is it not possible that the sharp pointed crystals of this substance in passing along the narrow tubes of the kidneys may so irritate them as to set up chronic inflammation in the organ?

Another good suggestion they make is to limit or cut off the supply of such food as forms most urea, and secondly, to burn up or oxidize the intermediary compounds by the administration of pure oxygen, or by increasing the amount of muscular exercise.

WHITECHAPEL MURDERS.

For the last month the English press, both lay and medical, have been literally full of the details of these tragedies, and every kind of explanation has been duly weighed and found wanting. The fact is, as medical jurists know, the most difficult of all crimes of which to detect the perpetrator are those which have been perpetrated without a motive, for where there has been a motive for getting rid of any one the number of those who might be interested in their death is so limited that the police have no difficulty in getting upon their track; but when there is no motive there is no connecting link, so to speak, between the murderer and the murdered, and the detectives must, therefore, fall back upon watching alone. But to find a person in London when you do not know whom you are looking for, is like trying to find a needle in a haystack. The most probable theory is the one adopted by most of the medical journals, that the murderer is affected with that peculiar form of homicidal mania which takes exquisite pleasure in the murder of a female. It is well known that this is in some cases monomania, so that in all other subjects he may be refined and intelligent. Another theory, however, not without reason, holds that the murderer is one of those people of unbalanced mind, who, having witnessed the play of Dr. Jekyl and Mr. Hyde, which has been going on for some time in the London Theatre, has taken upon himself the dual character of being a well educated and benevolent gentleman in the daytime and then by the taking of some potent drug transform himself at night into a bloodthirsty fiend incarnate. We reject the view that these murders have been perpetrated for the sake of obtaining anatomical specimens, for we have seen these organs by the barrowful in the class room of a *privat-docens* of gynæcology in Berlin, but they certainly could not have been removed with sufficient skill, to be of any use for teaching

purposes, by the assassin's dagger. The only melancholy consolation about the horrid business is that he has chosen his victims from a type of human beings degraded below the beasts.

SIR MORELL McKENZIE AND THE EMPEROR OF GERMANY.

It is an old saying that when medical men quarrel the public laughs. Never was this more miserably or more pitifully demonstrated than in the case above referred to, where we have seen the leading specialist of England quarrelling in the public press with his German colleagues, or, as one of our contemporaries inelegantly puts it, "washing his dirty linen in public." It is time that the profession, at least, should understand the true inwardness of the sad case. The loving and beloved Crown Prince was stricken with cancer of the throat at least eighteen months ago, before even which time the leading physicians of the court had made a correct diagnosis, which, out of consideration for the patient, was kept as secret as possible; but certainly in May of last year, when we were in Berlin, it was a matter of daily discussion that the Crown Prince had cancer.

Now, the widow of a crown prince only receives a pension of $25,000 a year, while the widow of an emperor receives $250,000 a year, and there being a law in Germany that no one can ascend the throne who is stricken with a fatal disease, it became a matter of the greatest importance that the diagnosis of the two German surgeons should be contradicted.

Whether Sir Morell proceeded to Berlin with instructions to call the disease something else, or whether, like many successful specialists, he of his own accord gave the favorable prognosis, at any rate his favorable augury was received with welcome by the sufferer and his anxious family, who were thus encouraged to hope against hope. The old Emperor died, and the dying man reigned in his place. Alas! for all too short a time, but long enough to make his consort Empress of Germany and Queen of Prussia. Dr. McKenzie became Sir Morell and stood high in the favor of his Queen and country.

But this did not put off the fatal day, although everything was done for the patient that could either prolong his life or make his death more easy. He died, and his son, who was kept by means of Sir Morell's favorable diagnosis from ascending the throne for some months, at last took his place; and the first thing he did was to give Sir Morell a speedy dismissal, at the same time giving unmistakable evidences of his sympathy with the German surgeons for their temporary slight. Then Sir Morell McKenzie writes a book called the "Fatal Illness of Frederick the Noble," in which the author endeavors to show that he was altogether right in his management of the case and that those who differed from him were altogether wrong. It is not strange, says Dr. Dulles, of the *Medical Reporter*, that Dr. McKenzie felt the dissent and distrust of his German associates while his patient lived, or was irritated at their triumph when the diagnosis which they made and he denied was confirmed, or when the false hopes which he inspired the victim with gave place to a despairing death. It would not have been improper if he had in some brief communication to his professional brethren explained the reasons why he so long and so stoutly maintained that the Crown Prince was not suffering with cancer of the larynx and refused his assent to the extirpation of the growth; he might even with good grace have confessed that for reasons of state he was not permitted to express his candid opinion, and that if any blame was attached to his withholding the truth, he was willing to bear it in silence for the sake of the Empress. The course which he pursued has certainly brought a discredit upon a noble profession which will not soon be forgotten. We were pupils of his ten years ago in London and know that

he is still the first laryngologist in the world, but we add our friendly regret to the opprobium which has been heaped upon him by his enemies.

NOTICES OF BOOKS.

A Text-Book of Human Physiology. By Austin Flint, M.D., LL.D. New York: D. Appleton & Co. Montreal: Dawson Brothers.

The name of the author, one of the leading teachers of physiology of the day, is a sufficient guarantee that the contents of this work are thoroughly reliable, while the mechanical part, such as engravings, letter-press and paper, are up to the standard of all the Messrs. Appleton's work. Although it is the fourth edition of the old book, it is practically a new book, for, as the author says, the progress of science in this department has been so rapid that he has been compelled to completely rewrite it. The style in which it is written is so clear and easy that it is rather a pleasure than a labor to read it. We can heartily recommend it to students and to those practitioners who desire to keep themselves abreast of the times.

Lindsay & Blackiston's Physician's Visiting List.

Contents—Almanac for 1889 and 1890; Table of Signs to be used in keeping accounts; Marshall Hall's Ready Method for Asphyxia; Poisons and Antidotes; The Metric, or French Decimal System of Weights and Measures; Dose Table, revised and rewritten by Hobart Amory Hare, M.D., Demonstrator of Therapeutics, University of Pennsylvania; List of New Remedies, by the same author; Aids to Diagnosis and Treatment of Diseases of the Eye, Dr. L. Webster Fox, Clinical Assist. Eye Dept. Jefforson Medical College Hospital, and G. M. Gould; Diagram Showing Eruption of Milk Teeth, Dr. Louis Starr, Prof. of Diseases of Children, University Hospital, Philadelphia; Posological Table, Medows; Disinfectants and Disinfecting; Examination of Urine, Dr. J. Daland, based upon Tyson's "Practical Examination of Urine," latest edition; Incompatibility, Prof. S. O. L. Potter; A New Complete Table for Calculating the Period of Utero-Gestation; Sylvester's Method for Artificial Respiration; Diagram of the Chest; Blank leaves, suitably ruled, for Visiting List; Monthly Memoranda; Addresses of Patients and others; Addresses of Nurses, their references, etc.; Accounts asked for; Memoranda of Wants; Obsterics and Vaccination Engagements; Record of Births and Deaths; Cash Accounts, etc.

Can be ordered from any bookseller or direct from P Blakiston, Son & Co., 1012 Walnut street, Philadelphia.

A Hand-book of Historical and Geographical Phthisiology, with special reference to the distribution of consumption in the United States. Compiled and arranged by George A. Evans, M.D., Member of the Medical Society of the County of Kings, New York, etc., etc. New York: D. Appleton & Co. Montreal: Dawson Bros. Price, $2.

This volume contains a vast amount of very useful information on the localities most suitable for the cure of the various forms of pulmonary consumption, with especial reference to health in the United States. It also presents a sketch of the development of our knowledge of phthisis from the time of Hippocrates up to the present day, as well as the ascertained facts regarding the geographical distribution of that affection.

The treatise is largely composed of statistics regarding the locations where phthisis is most prevalent, showing also places where the climatic influence has proved most beneficial. The work has only been compiled after long and untiring research of numerous authorities on this disease, which is found in all parts of the globe. The statistics have been so arranged in regard to the geographical distribution of consumption in the United States as to make them available for convenient reference in selecting localities of resort as residence for invalids. This little volume on such a very important subject should recommend itself to the earnest attention of all busy practitioners. The book is neatly bound in dark cloth with gold lettering, and the superior quality of the paper and large, distinct type-work make the whole well worthy of the energy of Messrs. D. Appleton & Co., New York.

PERSONAL.

The following changes have occurred in the Medical Faculty of Bishop's College.

Dr. Armstrong has been appointed Professor of Operative Surgery.

Dr. Rollo Campbell (M.D. Bishop's, 1887) has been appointed Demonstrator of Anatomy.

Dr. R. A. Kennedy has resigned, owing to ill health, the position of Registrar. Dr. G. Tillerie Ross replaces him.

Dr. Armstrong has resigned the professorship of Physiology, and Dr. George Tillerie Ross has been appointed thereto.

Dr. Stewart, of McGill Faculty of Medicine, replaces this session Dr. Richard MacDonnell in his Clinical Medical work at the Montreal General Hospital. We hear favorable accounts from England of Dr. MacDonnell's progress towards recovery, at which his numerous friends greatly rejoice.

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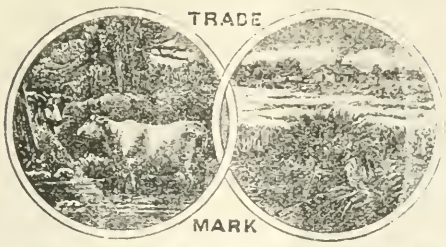

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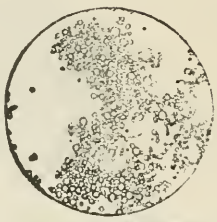

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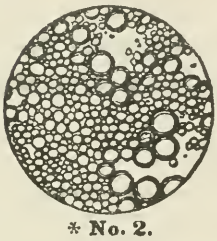

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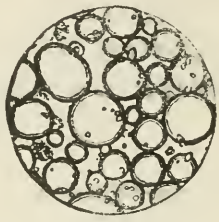

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Fellow in the Johns Hopkins University, Sec'y Baltimore Micros'l Society.

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Fig. 1.

Fig 5.

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